

#### Energy Future / Sustainable Future

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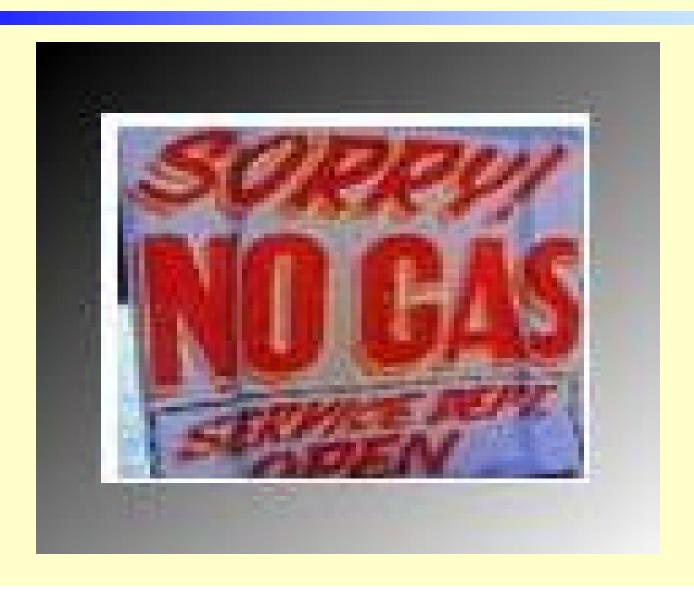
- Two scenarios
- Business as usual
  - "What is past is prologue"
- Business as unusual
  - "Taking the green path to energy efficiency"
- "Where do we go from here?"



#### Business as usual

- Oil Embargo of 1973
- Supply disruptions over past 25 years
- Energy appetite continues to grow
- Oil imports are at their highest level
- Climate changing due to global warming
- Air pollution in major urban areas
- Poor land planning choices = SPRAWL!







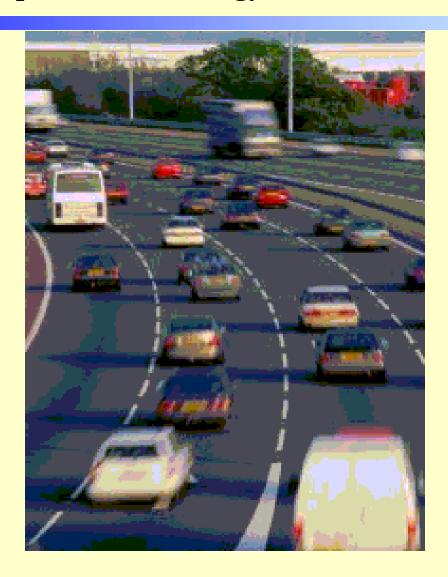
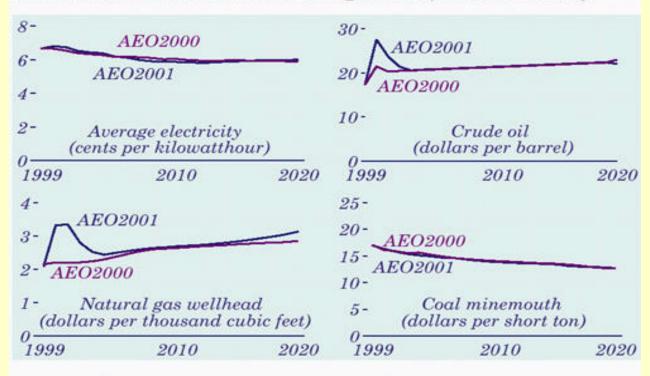




Figure 1. Fuel price projections, 1999-2020: AEO2000 and AEO2001 compared (1999 dollars)



**Projections:** Energy Information Administration, *Annual Energy Outlook 2000*, DOE/EIA-0383(2000) (Washington, DC, December 1999). *AEO2001* projections: Table A1.



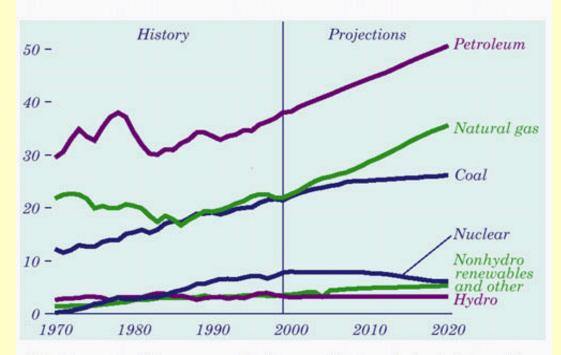
- Business as usual scenario
  - World oil supply and prices impacts
  - U.S. natural gas prices rising
  - Transition to restructured regional electricity markets; "More California's?"
  - Projected growth rate of U.S. economy
  - Energy use is tied to environmental impacts







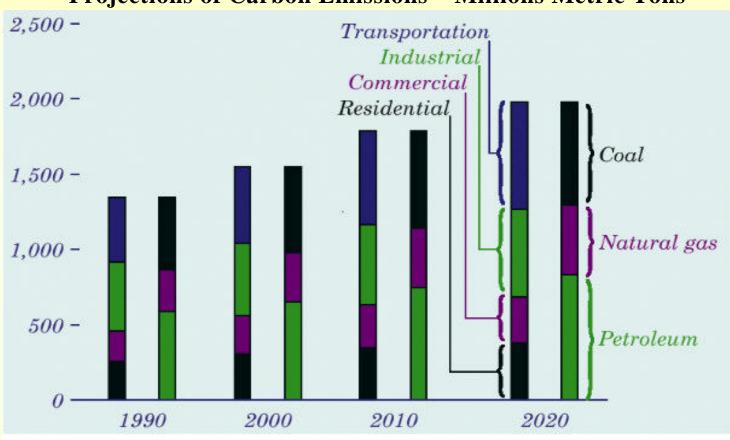
Figure 2. Energy consumption by fuel, 1970-2020 (quadrillion Btu)



**History:** Energy Information Administration, Annual Energy Review 1999, DOE/EIA-0384(99) (Washington, DC, July 2000). **Projections:** Tables A1 and A18.



#### **Projections of Carbon Emissions – Millions Metric Tons**









- Consumption
  - Total for the U.S.
  - Residential
  - Commercial
  - Industrial
  - Transportation
- Energy Efficiency



#### • Business as unusual

- Paradigm shift for U.S. economy
- Movement away from fossil fuel base
- Active implementation of market-ready renewable energy technologies
- Accelerated support for near-ready technologies
- Increased purchases across all EUSs by all elements/levels of government



- "Where Do We Go From Here?"
  - Determine where 'here' is
  - Decide on short and long term goals
  - Consciously plan on a 'green path'
  - Keep track of milestones
  - Celebrate achievement of them and use this as reinforcement to push on



http://www.energy.gov

http://www.eren.doe.gov/femp/index.html